

# Mineral Industry Surveys

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## VANADIUM IN MARCH 2000

According to Metal Bulletin, U.S. ferrovanadium prices during March ranged from \$4.90 to \$6.60 per pound of vanadium content, compared with \$4.30 to \$5.00 in February. The range for European ferrovanadium prices was \$12.40 to \$13.50 per kilogram in March. In February, European ferrovanadium prices ranged from \$8.55 to \$13.30. For vanadium pentoxide, the March range as published by Metal Bulletin was \$2.30 to \$2.65 per pound, while in February it was \$1.45 to \$2.50 per pound.

Officials at Xstrata AG announced that the company planned to concentrate on their core businesses and to divest their noncore

assets. Only its ferrochrome and vanadium activities were regarded as core holdings according to the chief executive officer. Included in its noncore businesses were Xstrata's oil and gas, coal, and pulp and paper holdings. Company officials did not specify a timetable for divesting these assets (Metal Bulletin, 2000).

### Reference Cited

Metal Bulletin, 2000, Xstrata to shed more non-core assets: Metal Bulletin, no. 8463, March 30, p. 8.

TABLE 1  
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM 1/

(Kilograms, contained vanadium)

	1999 p/		2000			
			February		March	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium 2/	3,370,000	303,000	276,000	319,000	288,000	308,000
Vanadium-aluminum alloy	W	13,100	W	13,700	W	13,200
Other 3/	460,000	9,790	37,600	10,300	39,300	9,940
Total	3,830,000	326,000	313,000	343,000	327,000	331,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

3/ Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol "W."

TABLE 2  
U.S. CONSUMPTION OF VANADIUM, BY END USE 1/

(Kilograms, contained vanadium)

	1999 p/	2000		
		February	March	Year to date
Steel:				
Carbon	1,160,000	101,000	107,000	302,000
High-strength low-alloy	949,000	79,400	85,000	241,000
Stainless and heat-resisting	81,500	W	W	W
Full alloy	840,000	71,600	65,300	215,000
Tool	343,000	W	W	W
Total steel	3,370,000	290,000	299,000	879,000
Superalloys	15,400	1,660	1,510	4,630
Miscellaneous and unspecified 2/	443,000	21,700	26,800	70,400
Total consumption	3,830,000	313,000	327,000	954,000

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Total steel."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3  
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND  
VANADIUM METAL, INCLUDING WASTE AND SCRAP 1/

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
1999	1,210,000	\$1,680,000	30,400	\$779,000
2000:				
January	--	--	2,930	81,800
February:				
Germany	--	--	473	19,800
Year to date	--	--	3,410	102,000
Exports:				
1999	514,000	6,440,000	177,000	3,200,000
2000:				
January	49,700	756,000	--	--
February:				
Canada	14,100	293,000	308	7,240
Israel	1,430	22,200	--	--
Korea, Republic of	12,600	129,000	--	--
Mexico	23,600	307,000	--	--
South Africa	185	5,190	--	--
United Kingdom	--	--	17,100	254,000
Total	51,900	756,000	17,400	261,000
Year to date	102,000	1,510,000	17,400	261,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 4  
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND  
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
1999	1,930,000	\$20,700,000	208,000	\$1,920,000	--	--
2000:						
January	89,100	765,000	30,000	237,000	--	--
February:						
Austria	20,900	177,000	--	--	--	--
Canada	73,100	664,000	--	--	--	--
China	18,600	145,000	--	--	--	--
Czech Republic	32,200	250,000	--	--	--	--
South Africa	12,300	975,000	95,500	782,000	--	--
Total	157,000	1,330,000	95,500	782,000	--	--
Year to date	246,000	2,100,000	126,000	1,020,000	--	--
Exports:						
1999	213,000	3,180,000	747,000	4,270,000	69,700	\$656,000
2000:						
January	--	--	29,800	163,000	7,790	48,900
February:						
Belgium	--	--	53,600	255,000	--	--
Canada	5,410	69,400	--	--	8,380	81,200
Italy	--	--	10,000	43,200	--	--
Mexico	317	10,500	--	--	18,500	91,300
Saudi Arabia	--	--	2,200	14,600	--	--
Total	5,730	80,000	65,800	312,000	26,900	172,000
Year to date	5,730	80,000	95,600	475,000	34,700	221,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include catalysts containing vanadium pentoxide.

Source: Bureau of the Census.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG 1/

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity	Value
1999	1,800,000	\$6,940,000	2,700,000	\$1,360,000	1,150,000	\$1,740,000
2000:						
January	95,900	74,500	501,000	170,000	--	--
February:						
Canada	--	--	248,000	134,000	--	--
Mexico	111,000	103,000	--	--	--	--
Total	111,000	103,000	248,000	134,000	--	--
Year to date	207,000	178,000	749,000	304,000	--	--

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS 1/

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
1999	8	\$14,300	174,000	\$1,640,000
2000:				
January	--	--	35,500	197,000
February:				
Germany	--	--	312	11,800
India	475	4,570	--	--
Total	475	4,570	312	11,800
Year to date	475	4,570	35,800	209,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.